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(54) Title: LANTHANIDE-DOPED NANOPARTICLES, THEIR SYNTHESIS AND USES THEREOF

(57) Abstract: A photonic material comprising a core and an envelope is provided for use in telecommunications, diagnostics, imaging and other applications. In its simplest form, the core comprises at least one nanoparticle. The nanoparticle comprises an inorganic material and at least one luminescent ion, wherein the inorganic material is suitably selected to bind the luminescent ion. The envelope comprising a suitably selected organic stabilizing layer overlying said core. The core and envelope may have a shell located between them.

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